

Mr. Sclater remarked that the two Colies purchased on the 20th March last, and specially mentioned in his report for the month of March (see P. Z. S. 1885, p. 322) as *Colius striatus*, were, as he was assured by Capt. Shelley, who had lately been engaged on a study of this group, the Cape Coly (*Colius capensis*).

The four species of this singular group of which the Society had living specimens were therefore :—

1. *Colius castanonotus*, Verr. Chestnut-backed Coly. Angola.
(See P. Z. S. 1876, p. 413, plate xxxv.)
2. *Colius erythromelon*. Red-cheeked Coly. South Africa.
(See P. Z. S. 1884, p. 475, plate xlv.)
3. *Colius nigricollis*. Black-necked Coly. West Africa.
(See P. Z. S. 1884, p. 530, plate xlv. fig. 1.)
4. *Colius capensis*. Cape Coly. South Africa.
(Two, purchased 20 March, 1885.)

Of these the two Cape Colies, together with one Red-cheeked Coly and one Black-necked Coly, were still alive in one large cage in the Parrot-house.

The following papers were read :—

1. Report on the Collection of Birds obtained during the Voyage of the Yacht 'Marchesa.'—Part IV. Celebes.
By F. H. H. GUILLEMARD, M.A., M.D., F.L.S., &c.

[Received May 20, 1885.]

The cruise of the 'Marchesa' having been for the most part confined to northern Celebean waters, no great novelties could be looked for among the 112 species collected there. The researches of Wallace, Meyer, Von Rosenberg, and others have made us thoroughly acquainted with the avifauna of this portion of the island, but the south-eastern peninsula as yet remains almost unknown; and, when we bear in mind the differences of distribution which occur between the Macassar and Menado districts, it seems not improbable that a visit to that part and its neighbouring islands would be amply repaid.

The 'Marchesa,' after a short stay in Macassar, from which port a visit was made to the Maros district, sailed for Menado in North Celebes, and remained on this coast and in the Gorontalo Gulf for several weeks. No new species were obtained, but three—*Astur trivirgatus*, *Alcedo bengalensis*, and *Halcyon pileata*—have not hitherto been recorded from Celebes. The following is a list of the birds collected, together with such short notes as have been deemed necessary.

1. *TANYGNATHUS MUELLERI* (S. Müller and Schlegel).

Tanygnathus mülleri, Wald. Tr. Z. S. vol. viii. pt. 2, p. 31.

a. ♂. Talisse Island, N. Celebes.

b. ♂. Menado.

c. ♀. Menado.

Bill scarlet; tarsus olive-green. Length of wing 21·5 centims.

I did not observe very many either of this or the following species in N. Celebes; but I was led to the conclusion that they were distinct from the larger size of the present species in the flesh. In ♂ the interscapulars are lightly tipped with blue.

2. *TANYGNATHUS ALBIROSTRIS*, Wallace.

Tanygnathus albirostris, Wall. P. Z. S. 1862, p. 336.

a. ♂. Menado.

b. ♀. Menado.

Bill creamy white; feet brownish olive. Wing 20·3–20·7 centims. Head markedly green in both, with no golden shade. General surface characterized in like manner by absence of the yellow shade. Blue on the wing-coverts almost non-existent.

3. *PRIONITURUS PLATURUS* (Kuhl).

Prioniturus platurus, Wald. *op. cit.* p. 32.

a. ♂. Menado.

b-e. ♀. Kema.

f. ♂. Wallace Bay, N. Celebes.

Native name *Kakatua birotti*.

In one female the wing-coverts are as in the adult male; in two others they are becoming grey, while in the fourth, although the tail is provided with a racket, the wing-coverts are of a uniform green. In one of the examples in which the wing-coverts are already changing there is no sign of a racket. Iris brown; bill lead-coloured; feet greyish. Wing about 18·0 centims., length 32·8.

4. *PRIONITURUS FLAVICANS*, Cassin.

Prioniturus flavicans, Wald. *op. cit.* p. 32.

a. ♂. Wallace Bay, N. Celebes.

b. ♀. Likoupang.

Bill whitish slate; tarsus slate. In *a* the median pair of rectrices are prolonged about half an inch beyond the rest, and the racket is being formed apparently by the gradual erosion of the webs along the shaft of the feather.

5. *LORICULUS STIGMATUS* (Müller & Schl.).

Loriculus stigmatus, Wald. *op. cit.* p. 32.

a, b. ♂. Menado.

c. ♀. Menado.

d, e. ♀. Kema.

Native name *Tientis*.

Iris brown; bill black; legs pinkish. Length about 15·5 centims., wing length 9·4–9·7. Met with also near Tondano.

6. LORICULUS EXILIS, Schlegel.

Loriculus exilis, Wald. *op. cit.* p. 32.

a. ♂. Menado.

b-d. ♀. Menado.

Iris brown; bill dull red; tarsus yellow. Length 10·2 centims., wing 6·8. The female is without the red throat.

7. TRICHOGLOSSUS ORNATUS (Linnæus).

Trichoglossus ornatus, Wald. *op. cit.* p. 32.

a-c. ♂. Menado.

d, e. ♀. Menado.

f. Menado.

g. ♂. Gorontalo.

h, i. Kema.

Iris reddish yellow; bill scarlet; feet bluish green. Length 23 centims., wing 12·3-12·8. Native name *Pakiji*. The example *g* is remarkable for having the wing and tail pale yellow, spotted and washed with green. It had been in captivity. In two others the interscapulars have a broad subterminal bar of yellow. This species is one of the commonest birds of the north of Celebes.

8. TRICHOGLOSSUS MEYERI, Walden.

Trichoglossus meyeri, Wald. *op. cit.* p. 32.

a. ♀. Menado.

Native name *Pakiji lelaro*.

9. SPILORNIS RUFIPECTUS, Gould.

Spilornis rufipectus, Wald. *op. cit.* p. 35.

a. ♂. Maros River, S. Celebes.

b. Kema.

Iris brilliant yellow; bill black; tarsus yellow.

10. ASTUR GRISEICEPS, Schlegel.

Lophospiza griseiceps, Wald. *op. cit.* p. 33.

a. ♂. Kema.

b. Kema.

I am without notes on the greater number of the Raptorial birds, the majority of the specimens having been shot by two of our native hunters during our absence.

11. ASTUR TRINOTATUS, Bp.

Erythropsiza trinotata, Wald. *op. cit.* p. 33.

a, b. Kema.

c. ♂. Menado.

d. ♀. Menado.

e. *Juv.* Menado.Native name *Sikap abuabu*.

12. ASTUR SOLOENSIS (Horsf.).

Tachyspiza soloensis, Wald. *op. cit.* p. 34.

a. Kema.

13. *ASTUR TRIVIRGATUS*, Temminck.*a. Juv.* Likoupang, N. Celebes.

Iris light brown; bill black; tarsus yellow. This species has not before been recorded from Celebes.

14. *ACCIPITER RHODOGASTER* (Schlegel).*Teraspiza rhodogaster*, Wald. *op. cit.* p. 33.*a. Juv.* Menado.*b. Kema.*15. *LIMNAETUS LANCEOLATUS*, Bp.*Limnaetus lanceolatus*, Wald. *op. cit.* p. 34.*a. Kema.*16. *HALIÆTUS LEUCOGASTER* (Gm.).*Cuncuma leucogaster*, Wald. *op. cit.* p. 35.*a. ♂*. Limbe Island, N. Celebes.17. *BUTASTUR INDICUS* (Gm.).*Poliornis indicus*, Wald. *op. cit.* p. 37.*a, b. ♂ juv.* Menado.*c. ♀ juv.* Menado.Native name *Tegit*.18. *PERNIS CELEBENSIS*, Walden.*Pernis ptilorhyncha*, Wald. *op. cit.* pp. 36, 111.*a. ♂ juv.* Menado.Native name *Kohéba*.

Mr. Gurney, to whom, for his kind help in the identification of many of the Raptorial birds, I am greatly indebted, says:—"This specimen shows considerable remains of immature plumage, in which stage this species has not, so far as I know, been yet described. The present example differs from the adult bird in the following particulars: the cheeks are dark chocolate-brown instead of bluish grey; there is much white about the jugulars and breast, probably indicating that in the nestling plumage these parts are entirely white; the white interspaces between the dark bars on the abdomen and under tail-coverts are larger, and the dark bars smaller, than in the adult; the under wing-coverts instead of being transversely barred with white and dark brown alternately, are all white, with the exception of slight and imperfect brown barring on the lowest row of feathers, and dark shaft-marks on these and on the feathers next the edge of the wing."

19. *SCOPS MENADENSIS*, Q. et G.*Ephialtes menadensis*, Wald. *op. cit.* p. 40.*a. ♂*. Menado.*b, c. ♀*. Menado.*d-f. Kema.*

None of the examples exhibit any distinct rufous colouring.

20. *NINOX PUNCTULATA*.*Ninox japonicus*, Wald. *op. cit.* p. 40.

a. N. Celebes.

Iris brown.

21. *STRIX ROSENBERGI*, Schlegel.*Strix rosenbergi*, Wald. *op. cit.* p. 41.

a. Kema.

22. *MULLERIPICUS FULVUS* (Q. et G.).*Mulleripicus fulvus*, Wald. *op. cit.* p. 41.

a, b. ♂. Menado.

c. ♂. Likoupang.

d. ♂. Kema.

e, f. ♀. Kema.

g. ♀. Menado.

h. ♀. Likoupang.

Native name *Burong tukan*. Iris light yellow; bill black; feet greenish grey. Length about 38·7 centims., wing 17·2–18·4. Common in North Celebes.

23. *IYNGIPICUS TEMMINCKII* (Malherbe).*Yungipicus temminckii*, Wald. *op. cit.* p. 41.

a, b. ♂. Kema.

c. ♀. Tondano.

Iris brown; bill greyish brown; tarsus dull olive. The female specimen exhibits a marked ruddy tinge on the interscapulars, edges of the primaries, and upper surface of the tail.

24. *MEROPS ORNATUS*, Latham.*Merops ornatus*, Wald. *op. cit.* p. 42.

a. ♂. Menado.

b. ♀. Menado.

Iris dull red; bill black; feet greyish black. Length 25·0 centims., wing 11·2–11·6.

25. *CORACIAS TEMMINCKI* (Vieillot).*Coracias temminckii*, Wald. *op. cit.* p. 43.

a–d. ♂. Menado.

e. ♂. Kema.

f. Kema.

Iris brown; bill black; tarsus dirty brownish black. Length about 35·0 centims., wing 19·2–19·5. Native name *Tonkaka*.

26. *EURYSTOMUS ORIENTALIS* (Linnæus).*Eurystomus orientalis*, Wald. *op. cit.* p. 43.

a. ♂. Limbe Island, N. Celebes.

b, c. Kema.

27. *ALCEDO BENGALENSIS*, Gmelin.*a.* ♀. N. Celebes.*b.* ♀. Kema.

Bill as in *A. moluccensis*, with the basal part of lower mandible orange in the female. Length 16·5 centims., wing 7, bill 4·4–4·9. This is, I believe, the first instance of this species being recorded from Celebes.

28. *ALCEDO MOLUCCENSIS*, Blyth.*Alcedo moluccensis*, Wald. *op. cit.* p. 45.*a.* ♂. Kema.*b, c.* ♀. Kema.

Iris brown; tarsus bright red; bill black in the male; the females have the base of the lower mandible orange. Length of female 17·7 centims., wing 7·4, bill 4·7–4·9.

29. *PELARGOPSIS MELANORHYNCHA* (Temminck).*Pelargopsis melanorhyncha*, Wald. *op. cit.* p. 45.*a-c.* Kema.*d, e.* ♀. Limbe Island.*f.* ♀. Pogoyama, Gulf of Gorontalo.

Iris brown; bill black, red inside; feet reddish black, coral beneath. Length 37 centims., wing 15·2, bill from gape 9–9·4. In the not quite adult birds the delicate cream-coloured feathers of the upper part of the breast are tipped with brown. The head appears to get paler with age.

30. *MONACHALCYON MONACHUS* (Temminck).*Monachalcyon princeps*, Wald. *op. cit.* p. 43.*a, b.* ♂. Kema.*c.* Menado.*d, e.* ♂. Menado.*f.* ♀. Menado.*g.* *Juv.* ♀. Menado.

The hitherto presumed young bird has, I believe, been separated as a different species. Example ♀ is certainly remarkably small, but those that I have seen all bear evidences of undoubted immaturity. The native name is *Rajah uvang*.

31. *SAUROPATIS CHLORIS* (Bodd.).*Sauropatis chloris*, Wald. *op. cit.* p. 44.*a.* ♂. Gorontalo.*b.* *Juv.* Tomohon, N. Celebes.*c-e.* ♀. Menado.

Iris brown; bill black; basal half of lower mandible white; tarsus dirty greenish brown.

32. SAUROPATIS SANCTUS (Vig. et Horsf.).

Sauropatis sancta, Wald. *op. cit.* p. 44.*a.* ♀. Menado.

Iris brown; tarsus dull green; bill as in *S. chloris*. The chin, throat, and centre of abdomen are pure white. Length 21.1 centims.

33. HALCYON COROMANDA (Latham).

Callialcyon rufa, Wald. *op. cit.* p. 44.*a.* Kema.

34. HALCYON PILEATA, Bodd.

a-c. Kema.

The authenticity of the occurrence of this species in N. Celebes rests entirely with a native hunter whom we left in that district to collect. I have, however, no reason to doubt it, although personally I did not meet with the bird. Two of the specimens are not quite adult, the feathers on the upper part of the breast being edged with brownish black, giving a *maillée* appearance. In Mr. Sharpe's monograph no mention is made of the small patch of white feathers on the lower eyelid.

35. CITTURA CYANOTIS (Temminck).

Cittura cyanotis, Wald. *op. cit.* p. 44.*a.* ♂. Maim Bay, near Likoupang, N. Celebes.*b, c.* ♀. Menado.*d-f.* Kema.

Iris brown; bill coral; tarsus dark red; feet bright red beneath. Native name *Bulu bebek*.

The female birds have the white eyebrow, and appear to be *C. sanguirensis* of Mr. Sharpe. They are further characterized by having the stripe through the eye black washed with blue, not blue. The wing-coverts also are marked with buff, not being dark indigo as in the male.

36. CEYCOPSIS FALLAX (Schlegel).

Ceycopsis fallax, Wald. *op. cit.* p. 45.*a.* Sex incert. Wallace Bay, N. Celebes.*b.* Kema.

Iris brown; bill in *a* slate, lower mandible red; in *b* brilliant coral; feet bright coral-red. Length 12.2 centims.

The first example was shot on the lonely beach frequented by the Maleos, described by Wallace in his 'Malay Archipelago.'

37. MACROPTERYX WALLACEI (Gould).

Macropteryx wallacei, Wald. *op. cit.* p. 45.*a.* ♂. Menado.*b.* ? ♀. Menado.*c-e.* Juv. Menado.*f, g.* ♂. Kema.*h.* Kema.

Iris brown; bill black; feet blackish grey. Length 19-21 centims., wing 18·2-18·5. The young birds have the under surface marked irregularly with buff feathers, which are white at the base and tipped with brownish black. The tertials are white, and the primaries and secondaries strongly tipped with that colour. Native name *Pavas*.

38. *COLLOCALIA ESCULENTA* (Linn.).

Collocalia esculenta, Wald. *op. cit.* p. 46.

a. ♂. Maros River, S. Celebes.

b. ♀. Talisse Island, N. Celebes.

Iris brown; bill and tarsus black. Length 9·5 centims., wing 9·7-10.

39. *LYNCORNIS MACROPTERUS*, Bp.

Lyncornis macropterus, Wald. *op. cit.* p. 47.

a, b. ♂. Pogoyama River, Gulf of Gorontalo.

c. ♀. Pogoyama River.

d. ♀. Menado.

e. Kema.

Iris brown; bill reddish brown; feet clear brown. Length 30-31·5 centims., wing 23·5-25·5. Native name *Trio*.

This species seemed abundant in the north of Celebes, especially near Likoupang.

40. *CRANORRHINUS CASSIDIX* (Temminck).

Cranorrhinus cassidix, Wald. *op. cit.* p. 47.

a. ♂. Likoupang.

b. ♂. N. Celebes.

Iris bright orange; feet black. Length of adult male about 104 centims.; weight 5 lb. 3 oz. Bill orange-yellow; the basal plaques dull red anteriorly; casque dull red; bare throat cobalt-blue, "marked with two patches of black and one of dark blue."

Specimen *a* has two maxillary and three mandibular basal plaques. In *b* the third or anterior mandibular plate is incomplete.

41. *SCYTHROPS NOVÆ-HOLLANDIÆ*, Latham.

Scythrops novæ-hollandiæ, Wald. *op. cit.* p. 51.

a. Kema.

Culmen smooth and rounded; the maxilla with two grooves, both of which, however, are shallow and ill-developed.

42. *PHÆNICOPHÆS CALORHYNCHUS* (Temminck).

Phœnicophaës calorhynchus, Wald. *op. cit.* p. 52.

a. ♀. Kema.

b. Kema.

c-e. ♂. Menado.

f-h. ♀. Menado.

i. Menado.

Iris reddish brown; bill white, black, yellow, and red from tip to base; lower mandible entirely red; tarsus black. Native name *Burong bakeke*. Length 51·0–53·0 centims.

43. *EUDYNAMIS MELANORHYNCHA*, S. Müller.

Eudynamis melanorhyncha, Wald. *op. cit.* p. 53.

a-e. Kema.

f-h. ♂. Menado.

i, k. ♀. Menado.

(All the above are in transition plumage.)

l. ♀. Menado.

m-p. ♂. Menado.

q. ♂. Tomohon.

r. ♀ *via ad.* Talisse Island, N. Celebes.

(In the final stage of plumage.)

This series exhibits admirably the various phases of plumage through which this species passes. In the *first stage* the whole of the upper surface, wings, and tail are bright chestnut, clearly barred with black; the head streaked longitudinally with that colour. Beneath, the chin and throat are chestnut streaked with black; the rest of the under surface fulvous, barred with black; edge of wing white; moustache white.

Second stage.—Head and nape nearly black, with here and there a chestnut feather; upper surface more dusky black; bars broader and inclining to coalesce; primaries at tips brownish black.

Third stage.—Upper surface much as in the last, but darker; the chin and throat are brownish black.

Fourth stage.—Upper surface almost entirely greenish black, but the rufous and black barring still visible in some of the tail-feathers; under surface losing the barring and becoming dusky; edge of wing and moustache marked with brown.

Fifth stage.—All trace of the chestnut and black barring has disappeared; the tail is entirely greenish black; breast and abdomen dusky brown, washed with fulvous.

Sixth stage.—The greenish black of the upper surface is changing into bluish black; abdomen still darker; white moustache nearly gone.

Seventh stage.—Entirely blue-black; no moustache or white edge to wing; bill longer.

Iris in hepatic stage red or reddish brown; bill bluish black; tarsus slate. In the full plumage the iris is bright red; bill and feet black. Length 38·2–43·5 centims., wing 18·2–20·0. Native name, in hepatic phase *Kuku buri*, in mature plumage *Kouil*.

44. *CACOMANTIS SEPULCHRALIS*, S. Müller.

Cacomantis sepulchralis, Wald. *op. cit.* p. 116.

a, b. ♂. Menado.

c, d. ♀. Menado.

Iris "brown?"; bill black. In the immature bird the base of the lower mandible is probably yellowish. Tarsus yellow. Native

name *Burong bantik*. Length of wing 11·3 centims., tail about 14·0.

I hesitate whether to refer these specimens to *C. sepulchralis* or to *C. lanceolatus*. Two are slightly immature; but in the others the chin, cheeks, throat, and forehead are ashy grey; the head iron-grey; upper surface bronze-green, shading off to brown on the primaries; under surface bright rufous; middle pair of rectrices blue-black, the others brownish black; all tipped with white.

45. *CACOMANTIS TYMBONOMUS*, S. Müller.

Cacomantis tymbonomus, Wald. *op. cit.* p. 54.

a. Juv. ♀. Menado.

I refer this bird to *C. tymbonomus* with great doubt. The upper surface and wing are olive-brown; rump greyish; head and cheeks brown, flecked with ferruginous; entire under surface greyish white, strongly barred with brown; tail with a subapical dark-brown band and white apex to each feather. This white tip is not as in the last species, prolonged up the shaft of the feather, but has the basal boundary straight. This individual has a larger beak, longer wings, and a shorter tail than the last species. Wing 12·7 centims., tail 11·6.

46. *PYRRHOCENTOR CELEBENSIS* (Q. & G.).

Pyrrhocentor celebensis, Wald. *op. cit.* p. 55.

a-c. ♂. Menado.

d-f. Kema.

g. Likoupang, N. Celebes.

h. Menado.

47. *CENTROCOCYX AFFINIS* (Horsfield).

Centrococcyx affinis, Wald. *op. cit.* p. 56.

a. ♂. Limbe Island, N. Celebes.

b. ♂. Menado.

c. ♀. Menado.

Iris brown; bill and feet slate-coloured. Length 37·2 centims., wing 15·5–17·5. Native name *Kuluket*.

48. *CUCULUS CANORUS*, Linn.

Cuculus canorus, Wald. *op. cit.* p. 115.

a. ♀. Kema.

b. Kema.

Iris brownish yellow; bill—upper mandible dark bluish black, lower dull greenish yellow with black tip; tarsus yellow.

Cannot be distinguished from European skins in plumage. Wing in *a* 19·0 centims., tail 17·0. Wing in *b* 21·1 centims., tail 18·0.

49. *ORIOLOUS CELEBENSIS* (Wald.).

Broderipus coronatus, Wald. *op. cit.* p. 60.

a-d. ♂. Menado.

e-h. ♀. Menado.

i-l. Kema.

m. ♂. Kema.

n. ♀. Maros, S. Celebes.

Iris red; bill pink; tarsus bluish black. Length about 26·5 centims., wing 13·4-14·0. Native name *Burong koning*.

In two females from Menado the bill, though noted as pink, has dried black. These two birds have the coronal ring incomplete. The amount of black towards the apices of the two median rectrices I believe to bear no relation whatever to the age of the bird. It varies considerably; but many of the Orioles show a tendency to variation in the disposition of the yellow and black.

50. *GEOCICHLA ERYTHRONOTA*, Sclater.

Geocichla erythronota, Wald. *op. cit.* p. 61.

a. ♂. Menado.

I have no note of the measurements or soft parts, the only specimen I obtained being shot by my hunter at Menado during my absence. The native name is *Moupu burik*.

51. *TURDINUS CELEBENSIS* (Strickland).

Trichostoma celebense, Wald. *op. cit.* p. 62.

a. ♀. Menado.

Native name *Terrek*.

52. *PITTA CELEBENSIS*, Forsten.

Erythropitta celebensis, Wald. *op. cit.* p. 62.

a. ♂. Menado.

Iris ruddy brown; bill brownish black; feet pinkish slate. Native name *Mupu sava merah*.

53. *ANTHUS GUSTAVI*, Swinhoe.

Corydalla gustavi, Wald. *op. cit.* p. 117.

a. Kema.

54. *BUDYTES VIRIDIS* (Gm.).

Budytes viridis, Wald. *op. cit.* p. 65.

a. Kema.

A specimen entirely ashy-grey on the upper surface; rump olive-yellow; throat white; rest of under surface pale yellow; superciliary streak inconspicuous, yellowish white. No date.

55. *HIRUNDO JAVANICA*, Sparrm.

Hirundo javanica, Wald. *op. cit.* p. 66.

a. ♂. Menado, Sept. 6.

Iris brown; bill and feet black. Length 13·0 centims., wing 10·5.

56. *MYIALESTES HELIANTHEA* (Wallace).

Myiolestes helianthea, Wald. *op. cit.* p. 66.

a. ♂. Limbé Strait, N. Celebes.

Iris brown; bill yellowish brown; tarsus flesh-coloured.

57. *HYPOTHYMIS PUELLA*, Wallace.*Hypothymis puella*, Wald. *op. cit.* p. 66.*a, b.* Juv. ♂. Menado.*c.* ♀. Menado.*d.* ♀. Limbé Straits.*e, f.* Kema.

Iris brown; bill bluish black; feet blue.

58. *ARTAMUS MONACHUS*, Temminck.*Artamus monachus*, Wald. *op. cit.* p. 67.*a.* ♀. Near Menado.59. *ARTAMUS LEUCORHYNCHUS* (Linn.).*Artamus leucorhynchus*, Wald. *op. cit.* p. 67.*a.* ♂. Menado.*b.* ♀. Menado.

The Celebes birds resemble some I have from Sumbawa, in the grey of the throat being not so sharply defined as it is in Philippine and Bornean birds. The amount of white on the rump in the former also appears more restricted than in the latter.

60. *GRAUCALUS LEUCOPYGIUS*, Bp.*Graucalus leucopygius*, Wald. *op. cit.* p. 68.*a, b.* ♂. Menado.*c.* ♀. Menado.*d, e.* ♀. Gorontalo.*f.* ♀. Talisse Island, N. Celebes.

Iris brown; bill and tarsus black. Length about 28 centims., wing 15.5. Native name *Koukou inewahat*. The female is paler than the male, is without the black lores, and has the white on the rump more extensively diffused.

61. *EDOLISOMA MORIO* (S. Müller).*Volvocivora morio*, Wald. *op. cit.* p. 69.*a.* ♂. Kema.*b.* ♀. Kema.*c.* Juv.? Kema.*d, e.* ♂. Menado.

Iris brown; bill and feet black. Length about 25 centims., wing 12. Native name *Toktok ruoit*.

I am inclined to think that the plumage of the young male is very nearly identical with that of the adult female. In *c*, which is marked "sex. incert." on the label, the under surface shows evident signs of turning grey, and in *e*, marked "♂, Menado," the bird is evidently immature from the amount of ochraceous edging to the wing-feathers.

62. *LALAGE LEUCOPYGIALIS*, Gray.*Lalage leucopygialis*, Wald. *op. cit.* p. 69.

a. ♂. Menado.

b. ♀. Menado.

c. Kema.

Iris brown; bill and feet black. Length 18 centims., wing 9·5.

63. *CHIBIA LEUCOPS* (Wallace).*Dicrurus leucops*, Wald. *op. cit.* p. 70.

a-e. ♂. Menado.

f, g. ♀. Menado.

h. ♂. Tomohon.

Iris white; bill and feet black. Length about 30 centims., wing 15·4-16·1. These examples differ a good deal in the size and colouring of the gular metallic spots, and I feel sure no reliance can be placed on this characteristic for help in diagnosis in this genus. One example, a male from Menado, exhibits a single long bristle springing from the forehead, as in *C. pectoralis*. In none of the others is there any sign of it. Native name *Burong gunting*.

64. *ANTHOTHREPTES CELEBENSIS* (Shelley).*Anthreptes malaccensis*, Wald. *op. cit.* p. 70.

a-c. ♂. Menado.

d, e. ♂. Gorontalo.

f. Juv. ♂. Maros River.

Iris red-brown; bill and feet brownish black. Native name *Burong Tjui*.

65. *CINNYRIS FRENATA* (S. Müller).*Arachnethra frenata*, Wald. *op. cit.* p. 71.

a. ♂. Kema.

b, c. ♂. "Celebes."

d. ♀. Gorontalo.

e. ♂. Menado.

f. ♂. Marchesa Bay, Gulf of Gorontalo.

Iris brown; bill and tarsus black. Native name *Tjui koning*.66. *CINNYRIS GRAYI* (Wallace).*Nectarophila grayi*, Wald. *op. cit.* p. 71.

a-c. ♂. Kema.

67. *ÆTHOPYGA FLAVOSTRIATA* (Wallace).*Æthopyga flavostriata*, Wald. *op. cit.* p. 71.

a. ♂. Near Menado.

Native name *Tjui merah*.68. *DICÆUM CELEBICUM*, S. Müller.*Dicæum celebicum*, Wald. *op. cit.* p. 72.

a. ♂. Tomohon.

b. ♂. Tondano.

c. Kema.

Iris reddish; bill and feet brownish black.

69. *PRIONOCHILUS AUREOLIMBATUS*, Wallace.

Prionochilus aureolimbatus, Wald. *op. cit.* p. 72.

a. ♀. Tomohon.

b. ♀. Tondano.

Iris brown; bill and feet black. This species does not seem to be found except in the mountain district.

70. *ZOSTEROPS INTERMEDIA*, Wallace.

Zosterops intermedia, Wald. *op. cit.* p. 72.

a. ♀. Maros River, S. Celebes.

71. *MUNIA MOLUCCA* (Linnæus).

Munia molucca, Wald. *op. cit.* p. 73.

a, b. ♂. Kema.

Iris brown; bill and legs bluish black. Length 11·7 centims., wing 5. In small flocks, feeding in the grass.

72. *CORONE ENCA* (Horsfield).

Corvus enca, Wald. *op. cit.* p. 74.

a, b. ♂. Menado.

c. ♀. Menado.

Wing, length 26·5–28·5 centims.; culmen 5·0–5·5. By these measurements it would appear that the Celebean bird is smaller than those from Java, Sumatra, and Borneo (*vide* Cat. B. vol. iii. p. 43). Native name *Woka-woka*.

73. *STREPTOCITTA TORQUATA* (Temminck).

Streptocitta torquata, Wald. *op. cit.* p. 76.

a–e. Kema.

f. ♂. Menado.

g, h. ♀. Menado.

i, k. ♂. Likoupang.

l. ♂. Lotta (mountain district).

m. ♂. Maim Bay, N. Celebes.

n, o. ♂. Gorontalo.

Iris brown; bill and legs black. Native name *Burong pandita*: i. e. the parson bird, so called from the black plumage and white collar.

74. *BASILEORNIS CELEBENSIS*, Temminck.

Basileornis celebensis, Wald. *op. cit.* p. 77.

a. ♂. Menado.

b. Kema.

Native name *Rajah siëk*. This species is apparently far from common in the north of Celebes.

75. *ACRIDOTHERES CINEREUS*, Müller.*Acridotheres cinereus*, Wald. *op. cit.*

a, b. ♂. Maros River, S. Celebes.

Iris brownish orange; bill red-orange; feet yellow. Length 26 centims., wing 13.

I have never observed this bird in North Celebes.

76. *CALORNIS NEGLECTA*, Walden.*Calornis neglecta*, Wald. *op. cit.* p. 79.

a. ♂. Talisse Island, N. Celebes.

Iris brilliant orange-red; bill and tarsus black. Length 22·5 centims., wing 10·7; bill—culmen 2·2, from nostril 1·5, from gape 2·9; tail 9. Of a uniform dull metallic green.

Talisse Island is five or six miles off the extreme north point of Celebes.

77. *SCISSIROSTRUM DUBIUM* (Latham).*Scissirostrum dubium*, Wald. *op. cit.* p. 81.

a, b. ♂. Menado.

c, d. ♀. Menado.

e-g. Menado.

Iris reddish; bill bright orange; tarsus orange. Native name *Sīk*. Extremely abundant in flocks of about twenty individuals in the fruit-gardens round Menado, uttering noisy cries, and fighting at the tops of the trees.78. *OSMOTRERON GRISEICAUDA* (G. R. Gray).*Osmotreron griseicauda*, Wald. *op. cit.* p. 82.

a, b. ♂. Kema.

c. ♀. Kema.

79. *PTILOPUS FORMOSUS*, G. R. Gray.*Lamprotreron formosa*, Wald. *op. cit.* p. 82.

a-d. ♂. Menado.

e-g. Juv. ♂. Menado.

h, i. ♀. Menado.

Iris yellow; bill green; tarsus coral. Length 24·5 centims., wing 13·2-13·6. Native name *Wakiam pongot*.80. *PTILOPUS MELANOCEPHALUS*, Gm.*Iotreron melanocephala*, Wald. *op. cit.* p. 83.

a. ♂. Menado.

b. ♀. Menado.

c. Juv. ♂. Menado.

d. ♂. Talisse Island, N. Celebes.

f-h. ♂. "Celebes."

i, k. ♀. "Celebes."

Iris in male yellow; bill olive-green; tarsus coral. Length 22·5-23 centims.

81. CARPOPHAGA PAULINA, Temminck.

Carpophaga paulina, Wald. *op. cit.* p. 83.*a-f.* ♂. Talisse Island, N. Celebes.*g.* ♀. Talisse.*h.* "Celebes."*i, k.* ♂. Menado.*l.* ♀. Menado.*m.* ♀. Pogoyama River, Gulf of Gorontalo.*n.* ♂. Likoupang, N. Celebes.*o.* ♀. Likoupang.

Iris indian-red; tarsus red; bill in male bluish green, with a red patch at the base of the upper mandible. The female is without this. Weight about 19 oz. Length 37·5–42·1 centims., generally about 40; wing 21·5–23. Native name *Kum-kum*.

The bird was very common on Talisse Island, but there are no differences between skins from that locality and the mainland. There is no sexual difference, with the exception of the colouring of the beak already alluded to; but it is noticeable that some birds have a very marked reddish-copper gloss on the upper surface, while in others the strong green reflections are almost destitute of this colour.

82. CARPOPHAGA RADIATA, Q. et G.

Zonœnas radiata, Wald. Tr. Z. S. vol. viii. pt. 2, p. 84.*a, b.* ♂. Menado.*c-f.* ♀. Menado.*g. Juv.* ♀. Menado.*h.* ♂. Maros River.*i.* ♂. Talisse Island, N. Celebes.*k.* ♀. Kema.

Iris, outer ring red, inner yellow; bill brownish black; tarsus dull red. Length 35·5–36·5 centims., wing 20–21·2. Native name *Takura*. Some examples tend to bright coppery reflections, others to shining green, without reference to sex. The young bird is without the blue-black nuchal band, but a few of the reddish-purple feathers are beginning to appear; the head is fulvous, washed with greyish green; upper breast tawny; bar on the tail narrow and ill-defined.

83. MYRISTICIVORA LUCTUOSA (Reinw.).

Myristicivora luctuosa, Wald. *op. cit.* p. 84.*a.* ♂. Maim Bay, N. Celebes.*b, c.* ♀. Maim Bay.*d.* ♀. Kema.

Iris dark brown; bill bluish green, yellow at the tip; tarsus bluish green. Length about 43 centims., wing 23·3–24·4.

All the specimens have 14 tail-feathers; the external pair are white to the very apex, but have a narrow edging of black on the outer web.

84. MYRISTICIVORA BICOLOR (Scopoli).

a. ♂. N. Celebes.

Iris brown. Length 42·5 centims., wing 23·4. In a series obtained from Gilolo, the Weda Islands, and Sulu, the amount of terminal black on the external pair of rectrices differs considerably.

85. MACROPYGIA ALBICAPILLA, Temminck.

Macropygia albicapilla, Wald. *op. cit.* p. 85.

a. ♂. Menado.

b. ♀. Likoupang.

c, d. Juv. ♀. Menado.

e. Juv. ♀. Maros River.

f. Juv. ♂. Maros River.

Iris in adult violet, with an outer ring of flesh-colour; bill black; tarsus coral. Length about 35·5 centims., wing 15·5–15·8. Native name *Kuwon*. Examples *e* and *f* correspond somewhat closely to the description of *M. macassariensis*, but I am inclined to regard them as the young of *M. albicapilla*.

86. TURACÆNA MENADENSIS (Q. et G.).

Turacæna menadensis, Wald. *op. cit.* p. 85.

a–c. Kema.

d. ♂. Menado.

e. ♀. Menado.

Native name *Kapala putih*, *anglice* white head.

87. SPILOPELIA TIGRINA (Temminck).

Turtur tigrina, Wald. *op. cit.* p. 85.

a. ♂. Menado.

b–d. ♀. Menado.

e. ♀. Talisse Island, N. Celebes.

Iris brown; bill brown-black; tarsus pinkish. These examples do not differ from birds from Sumbawa, except that in the latter the iris is pale yellow. Native name *Torkuku*.

88. CHALCOPHAPS INDICA (Linn.).

Chalcophaps indica, Wald. *op. cit.* p. 86.

a–c. Kema.

These examples differ in the amount of white on the forehead. Thus in one it extends to behind the vertex, while in another it merely forms two supraorbital lines running backwards from the base of the upper mandible.

89. CALCENAS NICOBARICA (Linn.).

a. ♀. Amoerang Islands.

Iris dull red; bill black; tarsus dark coral. This bird was bought alive at Menado, and was said to have been caught on the Amoerang Islands, to the west of Menado.

90. MEGAPODIUS GILBERTI, G. R. Gray.

Megapodius gilberti, Wald. *op. cit.* p. 87.

a. N. Celebes.

91. MEGACEPHALON MALEO, Temminck.

Megacephalon maleo, Wald. *op. cit.* p. 87.

a-h. ♂. Wallace Bay, N. Celebes.

i-m. ♀. Wallace Bay, N. Celebes.

n. Near Menado.

Iris brown; bill pea-green, darker at base; culmen red; casque black; bare throat dark brown; feet and tarsus grey, claws yellow. Length 57·5-60 centims., the female being slightly the smaller. The weight of six different males only varied 2 oz.—from 3 lb. 6 oz. to 3 lb. 8 oz. Two females weighed 3 lb. 5 oz. and 3 lb. 7 oz. respectively; but two others (one of which had an egg ready for immediate extrusion, and another of which I have no record) weighed 3 lb. 14 oz. The male generally has a somewhat larger casque, and is a little brighter.

These birds were very abundant at the beginning of September on the lonely beach mentioned by Mr. Wallace in his 'Malay Archipelago.' The members of our party shot no less than 42 in two days. They are to be seen working in pairs or small flocks, never singly, and the digging continued all day, from sunrise to sunset. I am inclined to think that they may lay as many as twenty eggs in the season, as in some of the females I dissected there were about that number of ova, ranging from the size of a large pea upwards. There is a great difference in size between the egg just ready for extrusion and the next; the latter being not larger than a shilling. Two eggs I have measure respectively $10\cdot2 \times 6\cdot2$ and $10\cdot4 \times 6\cdot3$ centims.

92. CHARADRIUS FULVUS, Gm.

Charadrius fulvus, Wald. *op. cit.* p. 88.

a. Gorontalo, September 25th.

93. ÆGIALITIS GEOFFROYI (Wagl.).

a. Kema.

A specimen in summer plumage. Lord Walden does not include this species in his list of Celebes birds, but it has been recorded from that island by Meyer.

94. HIMANTOPUS LEUCOCEPHALUS, Gould.

Himantopus leucocephalus, Wald. *op. cit.* p. 91.

a-c. ♂. Limbotto Lake.

d. ♀. Limbotto.

Iris yellow; bill black; legs bright red. Length 37·5 centims. Shot at the end of September.

95. PORPHYRIO INDICUS, Horsf.

Porphyrio indicus, Wald. *op. cit.* p. 92.

a. ♂. Limbotto Lake.

Iris pinkish red; frontal plate brilliant red, bill darker; legs and feet pink, brown at the joints.

96. HYDRALECTOR GALLINACEUS (Temm.).

Hydralector gallinaceus, Wald. *op. cit.* p. 92.

a. ♂. Limbotto Lake.

Iris yellowish brown; bill black at tip, dirty yellowish at base; comb reddish yellow; feet and tarsus olive-slate. Length 20·2 centims.; wing 11·8 centims. Shot at end of September.

97. GALLINULA FRONTATA, Wallace.

Gallinula frontata, Wald. *op. cit.* p. 93.

a. ♂. Limbotto Lake.

Iris reddish; frontal shield orange-red; bill darker red, yellow at tip; tarsus red, olive-green at the joints.

98. ERYTHRA PHÆNICURA (Forsten).

Erythra phænicura, Wald. *op. cit.* p. 94.

a, b. ♂. Menado.

c. ♀. Menado.

d. Kema.

These birds resemble an example of *E. leucomelæna* from Sumbawa in having the forehead black, or very nearly so. Three have black feathers on the cheeks. The length of an adult male is 29·4 centims. Native name *Sarem wokwok*.

99. HYPOTÆNIDIA CELEBENSIS (Q. et G.).

Hypotænidia celebensis, Wald. *op. cit.* p. 95.

a, b. ♂. Menado.

c. ♀. Menado.

d. ♀. Kema.

Native name *Werries*.

100. HYPOTÆNIDIA PHILIPPENSIS (Linn.).

Hypotænidia philippensis, Wald. *op. cit.* p. 95.

a. ♂. Menado.

b. ♀. Menado.

Native name *Werries imbene*.

101. NUMENIUS UROPYGIALIS, Gould.

Numenius phæopus, Wald. *op. cit.* p. 96.

a, b. Kema.

c. ♀. Talisse Island, N. Celebes.

102. TRINGOIDES HYPOLEUCOS (Linn.).

Actitis hypoleucos, Wald. *op. cit.* p. 96.

a. Kema, no date.

